

Atlantic Richfield Company

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November 8, 2010

CERTIFIED – RETURN RECEIPT REQUESTED

Ms. Jere Johnson
Remedial Project Manager
U.S. Environmental Protection Agency Region 9
75 Hawthorne Street, SFD-9-1
San Francisco, CA 94105

Subject: October 2010 Monthly Report, Yerington Mine Site, Lyon County, Nevada: Administrative Order for Remedial Investigation and Feasibility Study (RI/FS), EPA Docket No. 9-2007-0005; Administrative Order on Consent, EPA Docket No. 09-2009-0010

Dear Ms. Johnson:

Pursuant to the above referenced orders issued by the U.S. Environmental Protection Agency - Region 9 (EPA), Atlantic Richfield Company (ARC) has prepared the following monthly report for RI/FS and removal action activities at the Yerington Mine Site (Site) during October 2010.

October 2010 Activities

- Continued routine Site O&M, security and bird deterrent activities including operation of the propane cannons for the Arimetco ponds (with the exception of the VLT Pond, as directed by EPA). Because of rainfall received during the month, resulting in limited ponded water occurrences (not enough to measure), the bird guard towers were re-activated at the pumpback well system (PWS) evaporation pond. The “wind dancer” bird deterrent was installed on the berm between the north and middle cells of the PWS evaporation pond. Performed routine maintenance by removing vegetation around the pond. USFWS conducted Site visits and reviewed the bird mitigation activities on October 13, 14, 26, 27, 28 and 29.
- Continued monitoring of the evaporation pan located near PW6. PWS evaporation pond levels: North Cell 0.0 feet; Middle Cell = 0.0 feet; South Cell 0.0 feet (limited occurrences of ponded meteoric water insufficient to measure).
- Arimetco heap leach fluid management system (FMS): with the exception of about 15,000 gallons from the VLT Sediment Pond (VLTSP) during system testing (see attached graphs), no fluids were transferred from the VLTSP, the Slot Sediment Pond (SSP) or the Phase 1 Pond to the FMS Evaporation Pond as part of routine operations during October; Pond levels: Phase 1 Pond = 2.5 feet; FMS Evaporation Pond = 7.0 feet; VLT Pond = 2.75 feet; Slot 2 Pond = 9.25 feet; approximately 84,595 gallons of solution was pumped from the leak detectors. Depth markings on the pond liners were re-painted using a staff gauge and line level to improve the visibility of the depth markings and to provide more accurate visual readings.
- The abandoned crane located near the VLT Pond was moved to the former electrical laydown yard to provide better access for planned Site activities in the Thumb Pond area.
- Initiated planning to evaluate the re-location of ARC contractor facilities that support Site O&M and RI activities to north of Burch Drive.

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October 2010 Activities - Continued

Site Characterization

- Site-wide monthly groundwater elevation measurements were obtained October 26-29.
- A pit lake water elevation of 4222.003 feet amsl was recorded on October 29, 2010 from the pressure transducer, an increase of 0.42 feet since September 29, 2010. The pit lake elevation has risen 3.1 feet since October 29, 2009.
- Continued meteorological monitoring at the AM-6 location including wind speed/direction, temperature, relative humidity, barometric pressure, precipitation and solar radiation.
- Received EPA comments on October 25 for the Baseline Human Health Risk Assessment for the Inhalation Pathway dated October 8, 2010, and initiated a response to EPA comments.
- Received EPA comments on October 14 for the Conceptual Site Model (CSM) for the Yerington Mine Site (Revision 4; draft text) dated July 16, 2010, and initiated responses to EPA comments and the preparation of a revised CSM.
- The following additions have been made to the bottled water program: DW-6, DW-9, and DW 73.
- The following changes were made to the domestic well program: a signed access agreement was received for a new resident DW-178; the owners at DW-6, DW-9, and DW-73 started receiving bottled water; and letters were sent out to the following 8 residences notifying them of their eligibility to receive bottled water: DW-40, DW-42, DW-47, DW-104, DW-107, DW-165, DW-168, and DW-177.
- Initiated compilation of monitoring data for inclusion in the 3Q Site-wide groundwater monitoring and domestic well monitoring reports.
- Continued the 2010 monitor well program (see attached progress update). Monitoring wells W5DB-D3, B/W-39B, B/W-38RS, B/W-38RI, B/W-38RD, B/W-38RB, B/W-55S, B/W-55I, B/W-55D, B/W-30S, B/W-30I, B/W-30D, B/W-42D, LEP MW-2D1, LEP MW-2D2, LEP MW-2B were completed. Based on field findings and discussions with EPA, monitoring wells LEP MW-2D1, LEP MW-2D2 and LEP MW-2B were completed in addition to the wells listed in the 2010 Work Plan. B/W-38 was re-located to the northeast corner of the Sulfide Tailings Pile due to insufficient saturated alluvium at its original location (the new location designation is B/W-38R). Monitoring well development began in October. Fifteen new monitoring wells were developed.
- Zonal sample results were received for B/W-62, B/W-65, W5DB, B/W-52, MW-4, B/W-44, and LEP MW-2. Zonal samples were collected from B/W-32, B/W-55, B/W-38R, B/W-66, B/W-42, B/W-60, and B/W-46.
- 50 aquifer solids samples were collected and shipped to Test America for laboratory analysis as part of the revised Aquifer Solids Work Plan.
- Monthly surface water sampling occurred on October 28.
- Submitted a technical memorandum summarizing the results of the PWS aquifer test program on September 24. Completed analytic modeling and initiated particle tracking of pumpback well capture zones based on the aquifer test data for the PWS.
- Initiated geophysical surveys described in the Process Areas Vadose Zone and Groundwater Characterization Work Plan. Submitted a technical memorandum on October 20, which provides additional information than provided in the Work Plan for the geophysical surveys, per EPA request.
- Initiated updates to the three-dimensional visualization tool for groundwater conditions associated with the Site to accommodate the 2010 hydrogeologic and geochemical data sets.
- Continued routine database management activities.
- Continued Site wildlife surveys, data management and wildlife observation reports.
- Attended the Yerington Stakeholders Meeting on October 28.

October 2010 Activities - Continued

AOC Removal Actions

- Performed quarterly sampling of FMS pond fluids and salt precipitates pursuant to the revised FMS O&M Plan.
- Continued compiling results for the geochemical and geotechnical characterization activities of mineral salt precipitates/sub-grade materials in the north cell of the PWS evaporation pond.
- ARC's contractor, USA Environment (USA), mobilized to the Site and initiated work on construction haul roads (additional haul road surveys were performed), and the interim covers for the Thumb Pond and Sub-Area A. Work on the remaining two removal actions (Process Areas Rad Soils and Transite Pipe) will begin in early November.
- Initiated Site perimeter and work area specific air monitoring. The water stand to supply construction water during the removal actions was established, per the ARC-Weed Heights Development agreement.
- The revised Process Areas Radiological Materials Removal Action Plan (RAP - Revision 2) was submitted to EPA on October 22. EPA approved the revised RAP on October 25.
- The revised Evaporations Ponds Implementation Work Plan for the Thumb Pond and Sub-Area A (Work Plan - Revision 3) was submitted to EPA on October 25. EPA approved the revised Work Plan on October 25.
- Completed field sampling activities, with EPA oversight, associated with the revised Cover Materials Work Plan. Shipped all collected samples to the respective analytical laboratories for geotechnical, hydraulic, geochemical and plant growth parameter analyses. An electronic version of the updated Cover Materials Work Plan – Revision 2 was transmitted to EPA on October 27.

Planned November/December 2010 Activities

Site Characterization

- Continue Site wildlife surveys, maintenance of wildlife observation data and preparation of wildlife observation reports.
- Continue groundwater elevation and pit lake level monitoring. Continue meteorological monitoring at AM-6.
- Submit the 3Q 2010 Site-wide monitoring and domestic well monitoring reports.
- Provide updates to EPA for domestic well access agreements, as needed.
- Continue borehole drilling, zonal sampling and monitor well installations pursuant to the revised 2010 Monitor Well and Ag Fields Work Plans. Continue aquifer solids testing activities pursuant to the revised Work Plan.
- Continue particle tracking associated with analytic modeling for the PWS based on aquifer test results, and submit a technical memorandum summarizing the results, pursuant to the PWS Characterization Work Plan Addendum.
- Meet with EPA to discuss the Process Areas RI Work Plan.
- Continue geophysical surveys in the Process Areas, and meet with EPA to discuss the results and next phase of geophysical surveys and related investigations.
- Conduct a tour of the Wabuska Drain with EPA, NDEP and YPT.

AOC Removal Actions

- Continue routine O&M, site security, and bird deterrent activities.
- Conduct 4Q 2010 sampling of FMS pond fluids and salt precipitates, pursuant to the revised FMS O&M Plan.
- Submit a letter report to EPA that summarizes the geochemical and geotechnical data resulting from the characterization activities for the north cell of the PWS evaporation pond.
- Compile analytical data, once received, resulting from implementation of the revised Cover Materials Work Plan, and initiate preparation of the Data Summary Report.

Planned November/December 2010 Activities - Continued

AOC Removal Actions - Continued

- Continue removal action activities for the Thumb Pond and Sub-Area A interim covers, Transite Pipe and Process Areas Radiological Soils, and associated monitoring (air quality and VLT screening).
- Submit a revised Dust Suppression Plan per EPA comments received on November 2.
- Submit the updated bird mitigation protocol to USFWS after receiving approval of the changes from EPA.

If you have any questions or comments, please contact me at (714) 228-6774 or via e-mail at jack.oman@bp.com.

Sincerely,



Jack Oman
Project Manager

cc: Dave Seter, EPA – via electronic mail
Jacquelyn Hayes, EPA – via electronic mail
Svetlana Zenkin, EPA – via electronic mail
Roberta Blank, EPA – via electronic mail
Andrew Helmlinger, EPA – via electronic mail
Tom Dunkelman, EPA – via electronic mail
Joe Sawyer, NDEP – via electronic mail
Tom Olsen, BLM – via electronic mail
Dan Newell, City of Yerington – via electronic mail
Phyllis Hunewill, Lyon County Commissioner – via electronic mail
Dennis Stark, Lyon County Manager – via electronic mail
Richard Faber, Lyon County Facilities Engineering – via electronic mail
Tom Grady, Nevada State Assembly – via electronic mail
Justin Whitesides, YPT – via electronic mail
Chairman Emm, YPT – via electronic mail
Dietrick McGinnis, McGinnis and Associates – via electronic mail
Tom Bowden, Ridolfi, Inc. – via electronic mail
Chairman Sammaripa, WRPT – via electronic mail
Vicky Moyle, WRPT – via electronic mail
Ron Halsey, Atlantic Richfield Company - via electronic mail
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